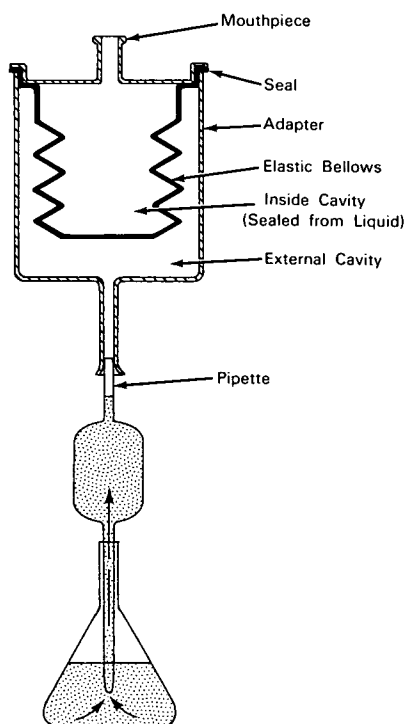


# NASA TECH BRIEF



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## Mouthpiece Adapter for Pipettes Protects Mouth from Harmful Liquids



**The problem:** Protecting the mouth of a laboratory technician from harmful liquids, such as cyanide solutions, acids, alkalis, dyes, and bacteriological solutions, drawn up in standard pipettes through suction applied by the mouth.

**The solution:** A mouthpiece adapter for standard pipettes that prevents any liquid or fumes evolved by the liquid from coming into contact with the mouth.

**How it's done:** The adapter uses an elastic bellows that is hermetically sealed to isolate the mouth of the operator from the liquid to be drawn up into the

pipette. The stem of the mouthpiece on the adapter is funnel-shaped to facilitate attachment to the top of the pipette.

The operator applies his lips to the mouthpiece and draws up air from the sealed-off cavity above the liquid. This operation produces a partial vacuum in the cavity communicating with the liquid and permits the ambient air pressure to force liquid up into the pipette. Dispensing control is achieved by rapidly disconnecting the adapter and placing the finger over the top of the pipette, as in conventional practice.

(continued overleaf)

**Notes:**

1. This pipette adapter for harmful liquids is an alternative to designs which use piston controls, rubber bulbs, or vacuum lines.
2. Inquiries concerning this invention may be directed to:

Technology Utilization Officer  
Langley Research Center  
Langley Station  
Hampton, Virginia, 23365  
Reference: B65-10043

**Patent status:** NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA, Code AGP, Washington, D.C., 20546.

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